

PRESS RELEASE

LONDON GROVE TOWNSHIP ADDING BEET JUICE TO WINTER ARSENAL

During the ice storm that hit the area on the morning of February 7, 2018, London Grove Township began utilizing Sugar Beet Molasses in its fight against winter weather. The township has been utilizing Sodium Brine for several years, but with the recent completion of their state of the art brine facility as part of a new Public Works complex, the Township can mix brine solutions specific to each storm. The ability to custom blend "Super Brine" for each storm will provide a quicker acting, more environmentally safe and fiscally responsible solution to both anti-icing and de-icing operations.

The Sugar Beet Molasses is a byproduct of sugar production utilizing sugar beets. Sugar beets are utilized to produce 20% of the sugar used worldwide. London Grove Township purchases "Geomelt 55" from GVM Incorporated of East Berlin, Pa in 4500-gallon tanker truck loads. The Geomelt 55 is then blended with Sodium Chloride Brine and Calcium Chloride to produce "Super Brine". A blend of 85% Sodium Chloride, 10% Geomelt 55, and 5% Calcium Chloride is used for a typical Southeastern Pennsylvania Storm, however the blend can be adjusted based on the precipitation type or temperature profile of a storm. The blending of these liquids can make the salt, which normally is only effective to around 20 degrees Fahrenheit, effective to negative 40 degrees Fahrenheit.

The Sugar Beet Molasses is a coffee brown liquid and not the typical red beet juice we all think of. The "Super Brine" can best be described to look like tea. The product will not stain vehicles and lowers the corrosive nature of the materials used during a storm. Studies have shown that the use of "Super Brine" as a prewetting agent can reduce salt usage by 30% by not only reducing the bounce and scatter as the salt is spread but also "jump starting" the chemical reaction and making the salt more effective.

The employees of London Grove Township will use the "Super Brine" not only as a prewetting agent, but also to pre-treat the roads prior to a storm. This pre-treating helps prevent the snow and ice from sticking to the road as a storm starts. Using "Super Brine", with beet juice" it helps to prevent the dust that forms when plain sodium brine pretreatments dry, this helps reduce corrosion for the motoring public and allows the pre-treatment to be done up to 4 days before a storm.

London Grove Township Public Works has completely designed and built the sodium brine production unit, as well as the storage, blending, and loading systems. The Public Works staff also designed and built both 1250-gallon anti-icing units which are used to store and apply the brine before a storm. Utilizing this custom-built equipment has resulted in a significant savings over the purchase of commercially available equipment.









